

- **Software with application in New Economy media for the display of ad banners in a format that requires users' input to allow free access to users' preferred electronic destination.**

#### Description

The proposed innovative method of advertising applies to cyberspace, interactive digital television (iDTV) and cellular telephony (through WAP, UMTS or subsequent generations) and any subsequent converging technology of the three. It concerns the obligation of users to submit applicable data for the software's hosting server to process. Prior to the reception of an appropriate response, the banner will block accessibility to the user's desired destination.

The submission and dispatch of the appropriate response results in the disappearance of the ad banner and:

- ⇒ Either free access into the user's pre-selected electronic destination,<sup>1</sup> or
- ⇒ The transfer to the next stage of electronic advertising (e.g., the transfer to a subsequent message of the same product, or the commencement of another ad.)

Concerning the Internet, the aforementioned procedure differs from the existing ones in cyberspace ("banners" contained in web pages and "pop-ups").<sup>2</sup> Today, there is no precedence for this format of advertising in cellular telephony or iDTV.

With the internet, if users choose not to make use of the software's aforementioned distinct feature, they will have the alternative option of exiting the browser or request a new electronic destination (which may or may not be compatible with the proposed software). With iDTV and cellular telephony, users will be able to cancel their request, and will therefore return to their previous level.

It is possible that the submission of the users' responses (such as naming products, answering questions, performing interactive game-like tasks) may take place in various ways:

- ⇒ By using the keyboard, the mouse, the microphone to input data

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<sup>1</sup> Example of receiving service or content include the access to ISP's, the viewing of standalone or linked web pages, viewing content that is designed to be viewed with the use of other softwares (like RealPlayer), or the appearance of pages in iDTV and cellular telephony.

<sup>2</sup> "Pop-ups" are currently web pages of common format only with advertising content and, thus, they allow users to close the window either through the menu functions, or by hitting the "X" button in the upper right corner. This will not be possible with the proposed software.

- ⇒ By selecting a specific answer to multiple choice questions with the use of peripherals<sup>3</sup>
- ⇒ By drawing shapes, logos or letters with the mouse, stylus or other similar peripheral tool for entering elements that can be translated to electronic data.

It is possible that users may determine the peripherals that they have in place, through customizing their settings of the software. Alternatively the software may automatically detect such configuration. This way, the software will be able to tailor the format of the ad accordingly, so that it may accept users' input through the preferred peripheral tools of the latter.

To accelerate the exchange of data and minimize the delay of users in attaining their requested service or content, it is aforethought that part of the software may be installed in advance in user terminal. The process remains the same of first displaying an ad and before allowing users to gain access to the content or service, presenting the users with compulsory interaction to receive content or service. The collection of credit and profile data as well as the processing may take place at any stage of the network and data exchange between ad-receiving server(s), intermediary servers and the terminals of users.

Users will have the option of defining their consumer preferences. Similarly, it is possible that electronic-activity detectors ("cookies") may be sent, following users' consent, in order to draw conclusions concerning the purchasing behavior and segmentation profile of users. This way, the nature of proposed products and their respective ads may be tailored to user profiles and preferences, as well as the specifications of the service/content provider. This is beneficial to all three parties involved: to users for ad messages will be more relevant, the advertisers as their promotional campaign will be better targeted and welcomed by users, the software's clients (the providers of service /content) who they may control the nature of messages that are associated to their provision of service/content (thus enhance the mental associations of end-users). Similarly it is possible that users may themselves define their own profiles (by completing electronic questionnaires or otherwise defining their preferences) in order to determine the ad themes that are of interest and appeal to them.

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<sup>3</sup> For example, such peripherals may be the mouse, a stylus, a joystick, the arrows on the keyboard of computers or cellular phones, or other control peripherals.

Data about user accounts, their credit records and preferences configuration may be equally stored at server level, or locally (in the level of user terminals). This data may be accessible to users following appropriate identification.

Also, concerning the use of the proposed software in the Internet, the following may be available:

- ⇒ The ability to directly access the web page of the advertised company, through clicking on built-in links
- ⇒ The ability to store ads or their respective links in the "favorites" folder
- ⇒ Giving users the choice to defer viewing ads for a subsequent moment and thus complete the transaction at a later time when credit will be passed on to the user.

Concerning the obligation of users to view ad messages, it is possible that the software may alternatively offer the direct purchase of website subscription, which will allow uninterrupted visit to the electronic destination, like it already happens presently. Also, proper configuration of the software may allow users to postpone the viewing of ads and postpone the start of the procedure for a subsequent time, when ads can be viewed in blocks.

To prevent users' deception and avoid frustration, users may be warned in advance about the number of ad banners that will follow. Alternatively, with proper configuration of the software' properties, users may wish to block or otherwise exclude electronic destinations that require the display of more than a predetermined number of ads before the electronic destinations can be consummated (thus delivering the service or content).

Finally, it is possible that users may be able to accumulate points from having viewed ads in block prior to their browsing session. After users configure their accounts appropriately, this credit may be consumed during the browsing session for uninterrupted access to their requested service or content.

## Claims

1. The first stage of the proposed software concerns the appearance of a sizeable ad banner, following users' selection of a URL or submission of other electronic request of content/service (depending on the medium), but prior to accommodating or delivering it (e.g., the viewing of a video-clip, or listening to a piece of music)

At a second stage, for the ad banner to disappear, the user must appropriately respond to the content of the advertisement (such as answering a question; selecting one among several alternative answers; performing an interactive task; attaining a certain score; or exceeding a certain duration of interaction through any plugged-in peripherals). By appropriately responding to the ad message, users register the message and acknowledge having done so.

After having appropriately responded to the ad, users are:

- either directly transferred to a subsequent ad banner or
- gain free access to their requested service or electronic destination (for the internet). When applied to interactive TV and cellular telephony, users are transferred to the next screen level.

The introduction of ads strengthens the role of advertisement as a sustainable source of revenue for website owners or those providing services in iDTV and cellular telephony.

2. In accordance to claim 1, the software may automatically detect the presence and operation of peripherals and customize the format of the ad banner for the appropriate reception of answers.
3. It is possible that a large part of the software may be installed in advance in the memory of the user terminals (PCs, cellular telephone/PDAs, iDTV decoder, etc.) with the aim of faster transfer of ad data and rapid completion of the procedure described in claim 1.

The collection and exchange of credit and profile data for purposes of identification, verification, processing of accurate answers and credit control may equally take place at any point of the network, i.e. at any intermediary device with computing power along the communication spectrum of central server to user terminal.

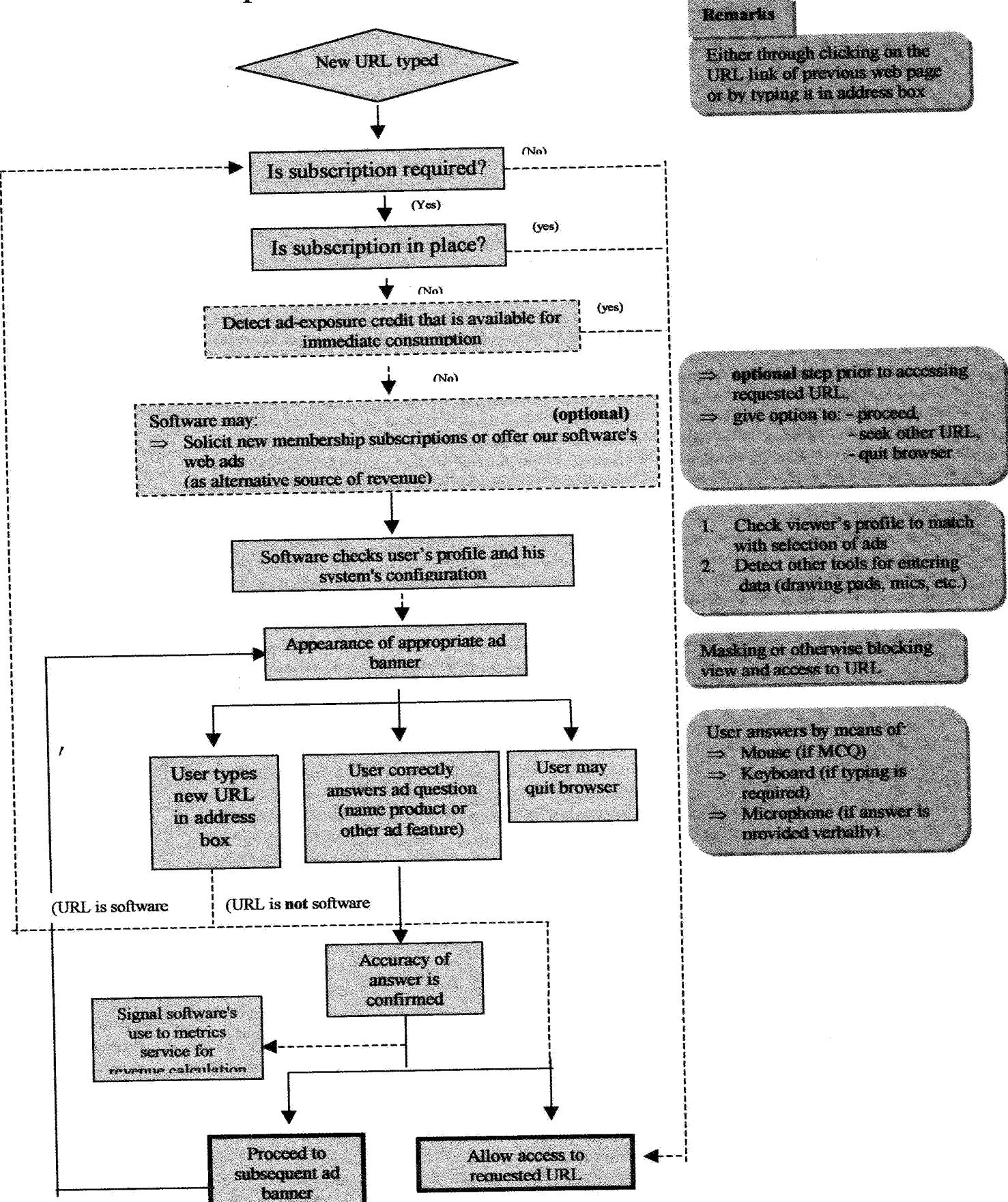
The program may operate at any level and stage of communication channels between server and terminal (ISP level, browser level, plug-in level, servers, client etc.). The entirety or parts of the program may equally reside and operate centrally (at the server level, the client level), or locally (in user terminals), however, the novelty of the process remains the same. Similarly, the proposed software may be built as a module to be integrated in larger software.

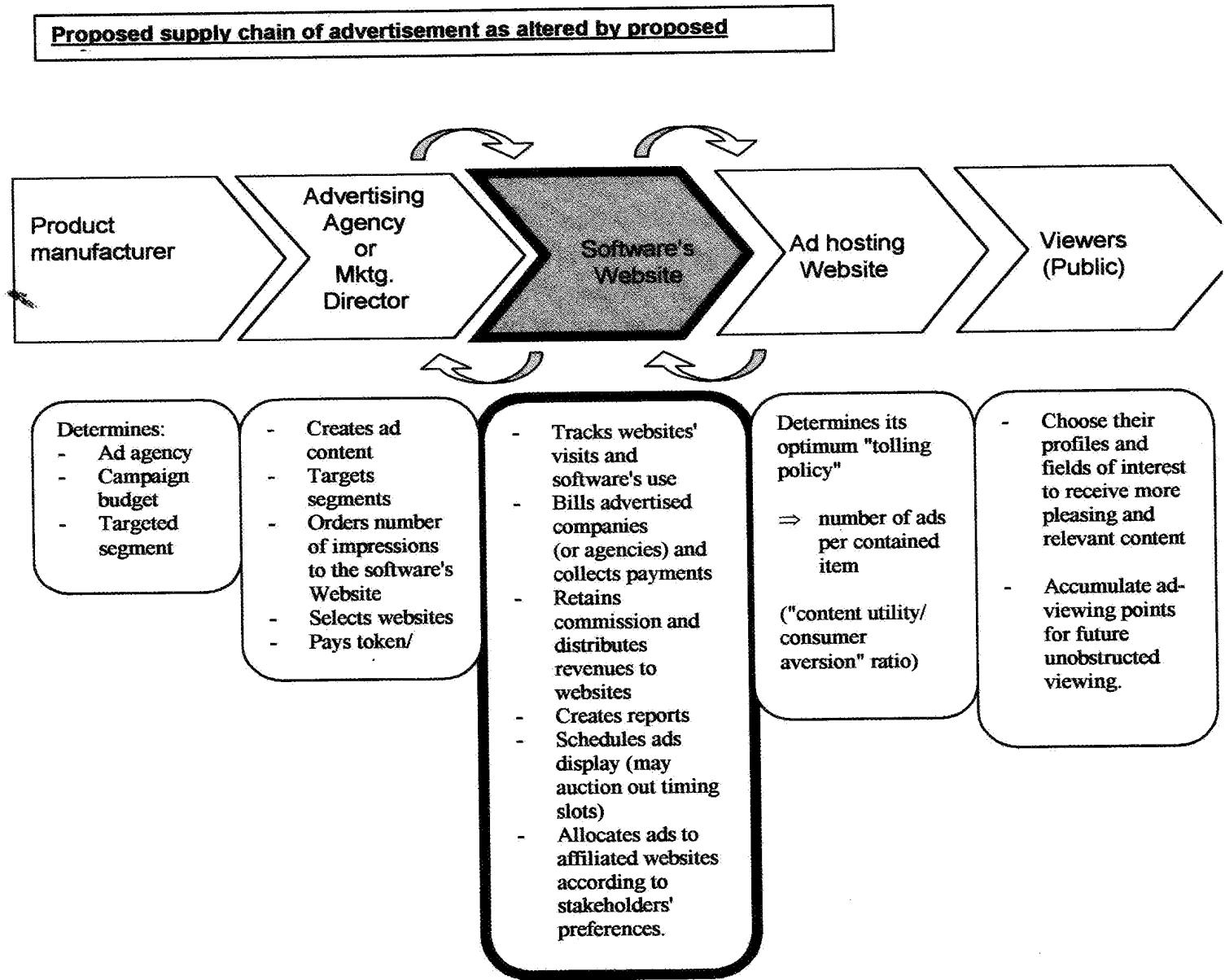
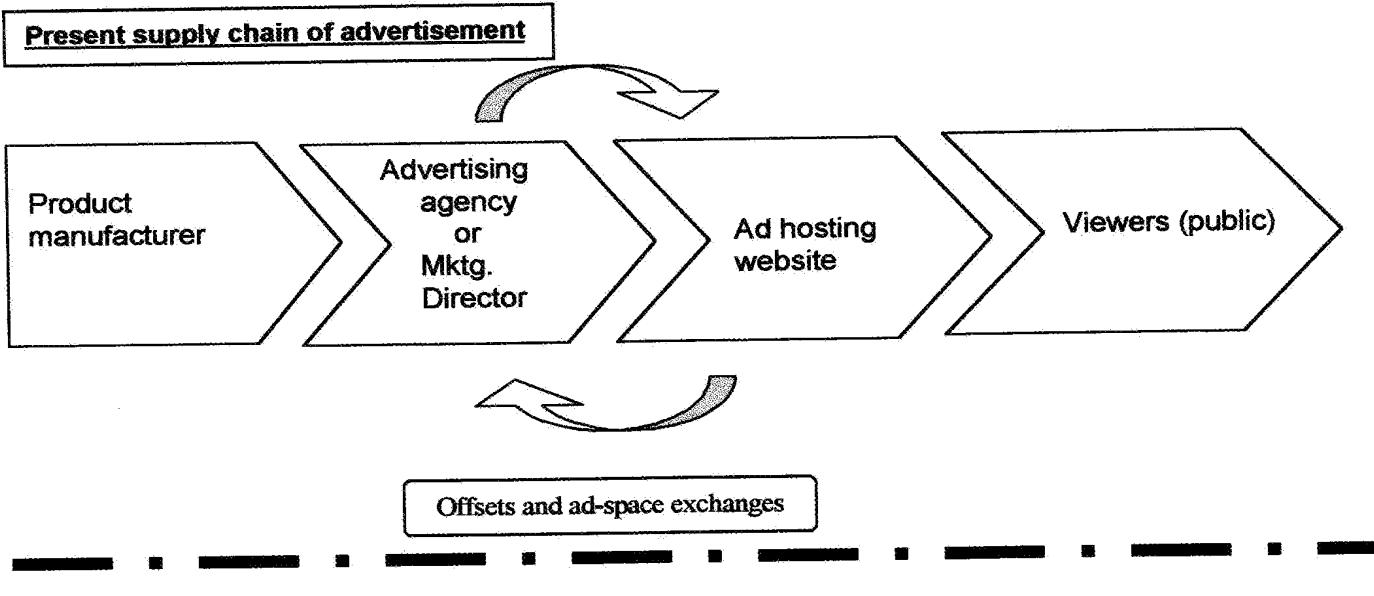
4. It is possible that the users may be informed beforehand about the number of messages that will follow before allowing them access to their desired electronic

destination. Similarly, users may choose to exclude destinations that require more than a preset number of ads, either consecutively or in intervals.

5. Through the exchange of digital IDs, electronic-activity detectors ("cookies"), username-password combinations, etc., the proposed software may automatically recognize the consumer profile of users as well as service/content providers and select the content and category of advertised brands/products accordingly. Users may be able to set their preferences electronically and thus determine their consumer profile/segment. In the contrary case, the ad content may be common to all those users that have chosen not to select their desired category of ads. Similarly, service/content providers may be able to electronically exclude certain categories of advertised brands or product categories to prevent users from making undesirable mental associations prior to delivery of the requested content or service.
6. It is possible that the software may offer users to register and purchase subscriptions for a fee so that the procedure described in claim1 should be bypassed.
7. When the software is used for the World Wide Web, users may exit their browsers or seek to reach a new URL destination at any time. In iDTV and cellular telephony, users will always have the option of either quitting the application or returning to their prior level.
8. Following a proper configuration of the system by users, it is possible that ad messages may be made to appear consecutively one after another in blocks or to be shown intermittently in a dispersed fashion during the online session of users.
9. It is possible that users may choose to view ads prior to their visits of web sites to earn credit. Such credit of ad-viewing units may be consumed at a later stage in order to receive service/content without interruption.

# Indicative process flow-chart of proposed software





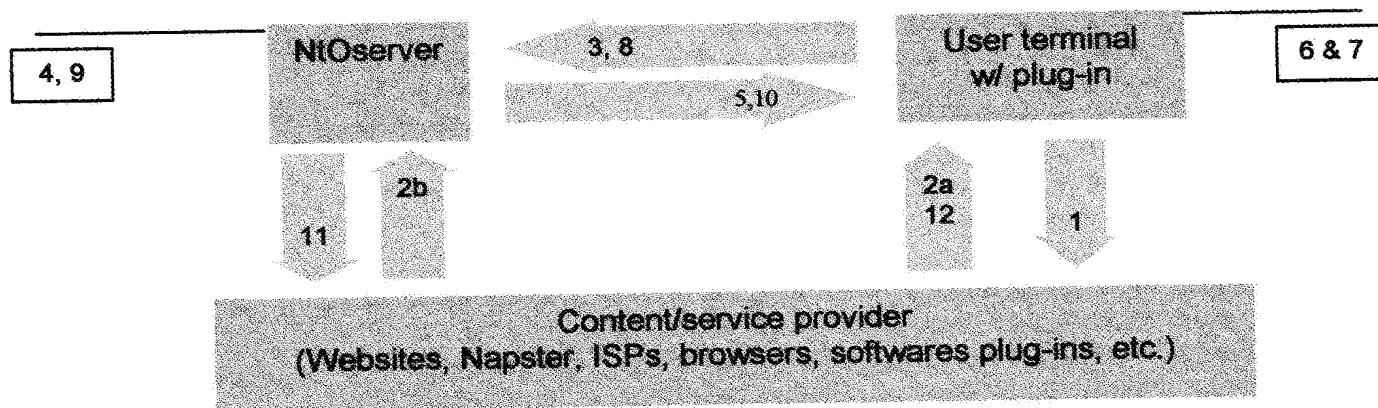
As already mentioned, the computing and processing of data can be divided and performed across the entire spectrum of a central server and the terminal of a local end-user, in all equipment with computing power.

The exchange of flow of data may originate and be directed and redirected in unlimited combinations without altering the key concept of the proposed software, i.e. an ad banner appearing prior to users accessing a certain electronic destination. This banner only disappears after users respond to the message of the ad banner and interact with the software thus performing a certain electronic task.

The scenarios in the following pages describe possible models of data flow and sequencing of tasks and functions. They are only indicative and are by no means exhaustive or complete: their sole purpose is to demonstrate the versatility of the software's innovative function. There are infinite combinations of possible patterns of data flow and task sequencing among a central server, clients and end-user terminals. However, the innovative feature of the proposed software remains intact.

## Indicative use based on an internet application of the NtO utility

Setup: a Central NtOserver, plug-ins residing in user terminals and an interface residing with the NtO client (Content/Service Provider)

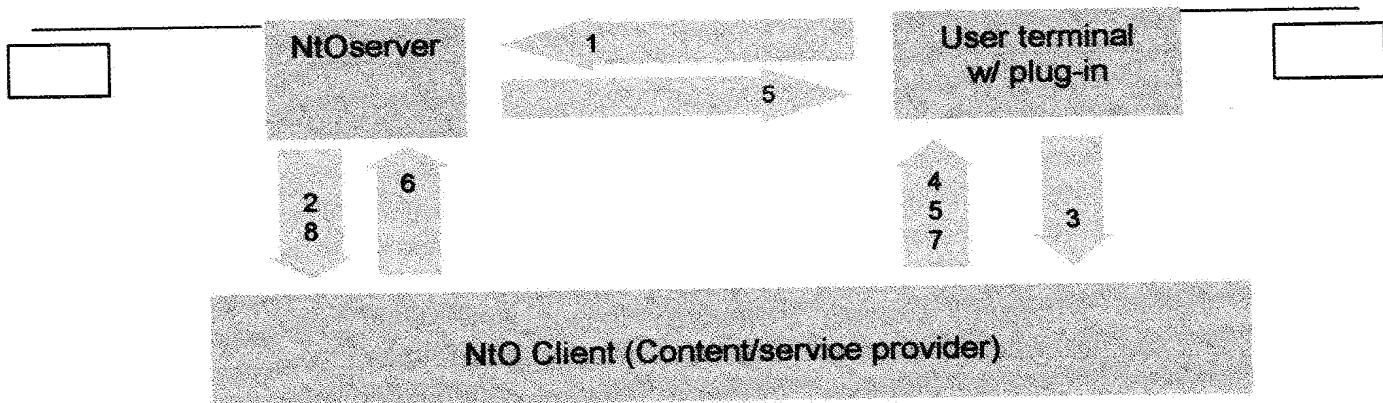


1. User tries to gain access to an NtO-enabled electronic destination (e.g., website links),
2. NtO-enabled services communicate:
  - (a) With locally stored NtO plug-in  $\Rightarrow$  activates plug-in  $\Rightarrow$  plug-in requests identification data from user.
  - (b) With NtO server:
    - (i) website identity
    - (ii) website links' specifications and requirements (such as limiting the categories of products to be depicted, e.g. banning pornographic ads),
    - (iii) website's credit requirement to provide service or access
3. NtO plug-in communicates username/password and previous credit balance to server
4. Passwords allows the software to process information on user's:
  - (a) credit balance,
  - (b) segment profile parameters,

Server processes received data to verify its integrity to: (a) select appropriate ad banner(s) according to preferences of both providers and users (b) calculate the required number of ads for users to meet credit requirement.
5. Server dispatches interactive ad (various elements such as video animation, text, graphical content, advertisers' URL link, Question and set of answers, keys to proceed)

6. Ad banners appear  $\Rightarrow$  user mentally processes ad message  $\Rightarrow$  user interacts successfully, according to predetermined requirements (e.g., a specific answer, a score, duration of interaction, etc)
7. NtO plug-in calculates new credit-balance locally
8. NtO plug-in sends new balance to NtOserver.
9. NtOserver re-calculates credit balance centrally  $\Rightarrow$  compares central to local calculation  $\Rightarrow$  updates record of credit acquisition and credit balance
10. NtOserver dispatches updated credit balance record to NtO plug-in.  
(Server repeats steps 4-10 until enough credit has been accumulated)
11. Server notifies the service provider on successful completion
12. Access is allowed.

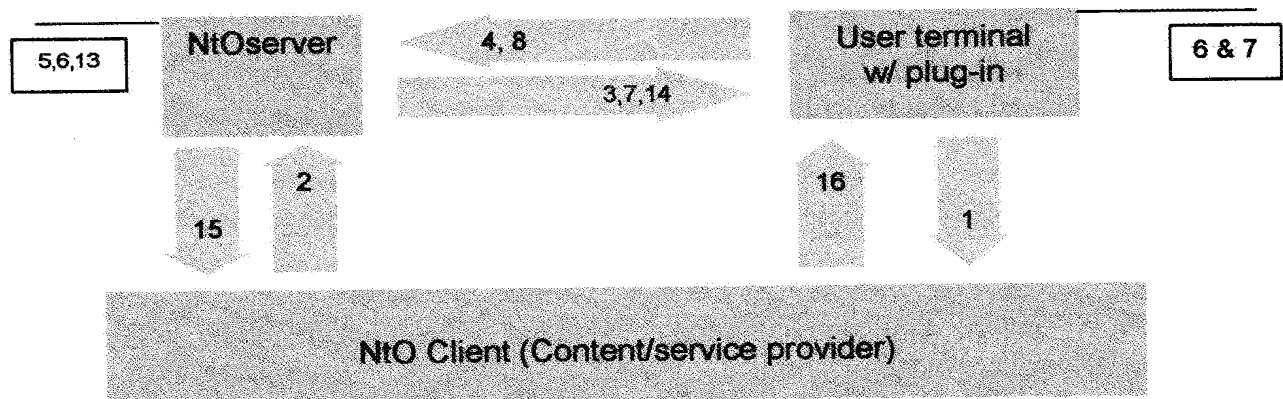
**Setup:** a Central NtOserver, plug-ins residing in user terminals and an interface residing with the NtO client (Content/Service Provider)  
 (same as before but now emphasis is placed on locally residing NtO plug-in)



1. Plug-in (installed in user terminal) connects with NtOserver revealing user identification.
2. Server recognizes user profile and dispatches it to NtO client (provider of content/service):
  - (a) A block of appropriate interactive ad (various elements such as video animation, text, graphical content, advertisers' URL link, Question and set of answers, keys to proceed)
  - (b) credit balance data
3. User requests NtO-enabled service/content from NtO client
4. NtO client extracts and communicates cost-related data to plug-in
5. NtO client processes cost-balance data
  - (a) If balance meets cost, client provides requested service/content
  - (b) If balance does not meet costs: Ad banners are presented to user ⇒ user processes ad message ⇒ user interacts successfully, meeting predetermined requirements (e.g., a specific answer, a score, duration of interaction, etc)

(steps 2-5 are repeated until enough credit is accumulated)
6. Client feeds updated profile of NtO User on NtO server
7. Access is allowed.
8. When pool of ads is depleted, NtO client requests further pool of ads from NtO

Setup: a central NtOserver, w/out plug-ins in user terminals and an interface residing in the server of the client (content/service provider)  
 (emphasis placed on central NtOserver)

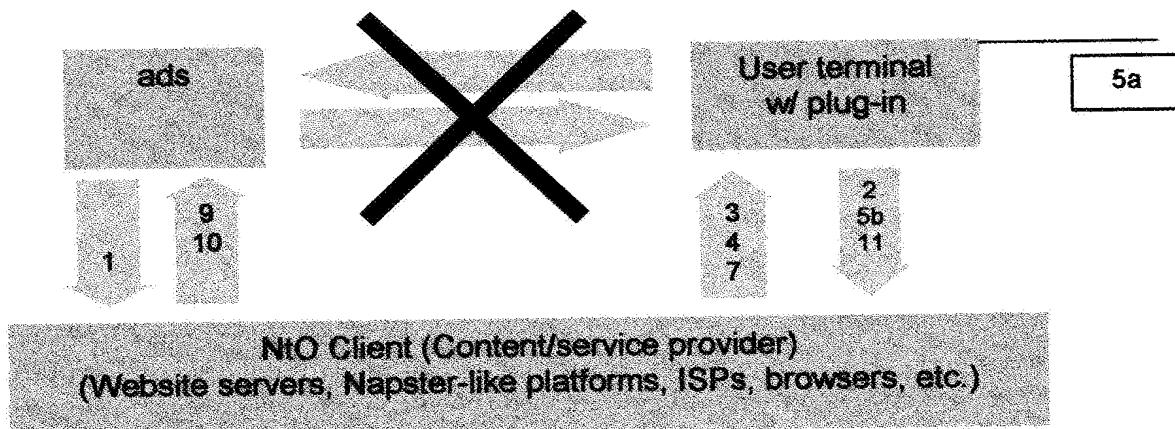


1. User tries to gain access to an NtO-enabled electronic destination (e.g., website links),
2. NtO-enabled services communicate with NtO server the following:
  - website identity
  - website links' specifications and requirements (such as limiting the categories of products to be depicted, e.g. banning pornographic ads),
  - website's credit requirement to provide service or access
3. NtOserver sends pop-up window to user
4. User communicates to NtO server (through the pop-up) the username and password.
5. Passwords allows the NtOserver to collect and process information on:
  - (a) user's credit balance,
  - (b) segment profile parameters,
6. Server processes received data to verify its integrity and select appropriate ad banner(s) to meet credit requirement.
7. Server's window presents interactive ads to users (in various forms such as video animation, text, graphical content, advertisers' URL link, Question and set of answers, keys to proceed)
8. Ad banners appear  $\Rightarrow$  user processes ad message  $\Rightarrow$  user interacts successfully to meet predetermined requirements (e.g., a specific answer, a score, duration of interaction, etc)
  
13. NtOserver recalculates credit balance centrally  $\Rightarrow$  updates record of credit acquisition and credit balance

14. NtOserver displays new credit balance to user's NtO window.  
(Server repeats steps 4-10 until enough credit has been accumulated)
15. server notifies the service provider on successful completion
16. Service provider provides user with service/content.

Setup: NtO-utility module residing in server of client (content/service provider)

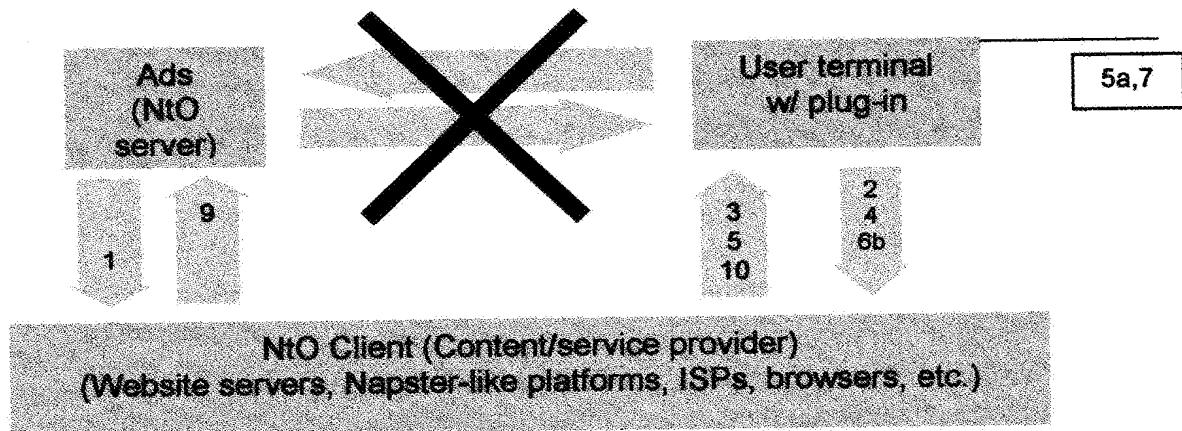
(w/out plug-ins in user terminals and a central NtOserver)



1. Service/content provider has secured ad content (throughput)
2. user requests content/service from server of NtO client.
3. NtO client recognizes user (either through the exchange of username/password or through digital ID, cookies, etc)
4. Service/content provider presents user with interactive ads
5. User either: (a) quits or (b) interacts successfully
6. Service/content provider repeats steps 3-4 until user has accumulated enough credit
7. Service/content provider allows access to content or provides service/content
8. User quits server of service/content provider.
9. NtO client requests more ads from NtO server
10. Plug-in updates NtOserver on user credit balance and profile.
11. User quits server of NtO client.

Setup: NtO-utility module residing in server of NtO client (content/service provider)

(w/ plug-ins in user terminals and little interference of central NtOserver)



1. Service/content provider has secured ad content (throughput)
2. User requests content/service from server of service/content provider
3. Service/content provider informs user NtO plug-in on credit requirement
4. Service/content provider recognizes user (either through the exchange of username/password or via digital ID, cookies, etc)
5. Service/content provider presents user with interactive ads
6. User either: (a) quits or (b) interacts successfully
7. User plug-in monitors credit
8. Steps 5-7 are repeated until plug-in communicates to Service/content provider that user has accumulated enough credit.
9. Plug-in updates NtOserver on user credit balance and profile.
10. NtO client allows access to content or provides service/content
11. User quits server of service/content provider. NtO client requests more ads from NtO server